



The 5G Infrastructure Public-Private Partnership

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Conclusion on practical insights

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Why are we here?

- Identify proper way to measure 5G performance
 - ‘Traffic’ or ‘throughput’ are not the only or sole metrics
 - We need to consider:
 - The deployment and configuration aspects
 - The scenario under which the experiment/measurement is performed
 - The experiment/testing procedure
- We do this by building on experience and knowledge across 5GPPP programs
- The ultimate why: -> Happy 5G users

Technical Highlights

- Identifying main impact factors by exploding the “cloud” into separate fields and evaluating separately
- Compare theoretical to actual achieved performance
 - Lessons learned
 - Initial solutions proposed but more work is needed
- 3 categories of impact factors
 - Deployment and configuration
 - Scenario in which evaluation is performed
 - Test/experiment procedure
- Results collected here focusing on various impact factors, evaluating
 - fiber and satellite links performance
 - central vs edge deployments and its impact on performance in scenarios
 - TCP vs UDP on bandwidth
 - MIMO impact in NSA deployment
 - impact from UL and DL intensive patterns
 - coverage impact from vegetation and other objects influencing signal

Conclusions

- How does 5G perform?
 - It depends...
- High complexity of 5G system means details impact more on performance
 - The job is not finished for the engineers – do not underestimate
- Understanding the context of the deployment, the scenario and the measurement methodology is key
- Goal: To prepare users/recipients of results of how to interpret and expect performance of 5G
- The projects referred to here uncover some of the complexity and its impact
- To understand fully it is encouraged to study outcome from projects in detail
 - See list of further reading in white paper

What's next?

- White paper to be published by end of June
 - Around 40 pages containing a lot of information
 - Very interesting results from which you got a preview today
 - Section with further reading enabling the audience to do a deeper dive if you need more.
- Continue to run experiments, apply the aggregated knowledge to make 5G a success

Credits

We want to thank all the contributors for the valuable discussions which led to the paper and the workshop

The presenter for the workshop:

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